USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

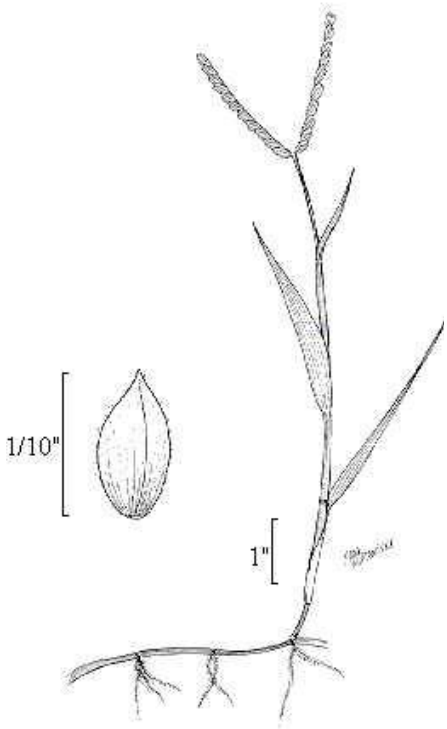
Plant Guide

KNOTGRASS

Paspalum distichum L.

Plant Symbol = PADI6

Contributed by: USDA NRCS Louisiana State Office, National Plant Data Center, & the Grazing Land Conservation Initiative-South Central Region



Southern Wetland Flora
USDA, NRCS, Wetland Science Institute
@ Northern Prairie Wildlife Research Center

Alternative Names

Eternity grass, Fort Thompson grass, ginger grass, joint grass, joint paspalum, saltene, salt jointgrass, salt-water couch grass, salt-water paspalum, seashore paspalum, and turfgrass. Synonyms of the scientific name are *Digitaria paspaloides*, *Paspalum distichum* var. *indutum*, and *Paspalum paspaloides.* Some botanists consider *Paspalum distichum* and *Paspalum vaginatum* as one species because they are similar in appearance and are found in similar habitats. However, the second glume at the base of the spikelet is hairy for *Paspalum distichum*.

Uses

Livestock: Knotgrass is valuable forage in areas of high salinity. It is recommended that knotgrass is lightly grazed and given a rest period of approximately 2 ½ to 3 months because the rooted stolons are often floating. It can be made into hay but is not suitable for silage.

Ornamental Landscaping: Knotgrass is used in golf course turfs and lawns.

Wildlife: It is grazed by many mammals and is considered a substantial source of food for ducks in Louisiana marshes.

Erosion: Knotgrass is recommended in the restorations of wetlands, marshes, beaches, and stream banks.

Conservation Practices: Knotgrass, because of its growth habit, potentially has application when established with certain conservation practices; however, conservation practice standards vary by state. For localized information, consult your local NRCS Field Office. NRCS practices include the following: 327-Conservation Cover; 342-Critical Area Planting; 386-Field Border; 390-Riparian Herbaceous Cover; 393-Filter Strip; 512-Pasture and Hay Planting; 550-Range Planting; 560-Access Road; 562-Recreation Area Improvement; 643-Restoration and Management of Declining Habitats; 644-Wetland Wildlife Habitat Management; 647-Early Successional Habitat Development/Management; 656-Constructed Wetland; 657-Wetland Restoration; 658-Wetland Creation; 659-Wetland Enhancement.

Status

Consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status, such as, state noxious status and wetland indicator values.

Description

General: Grass Family (Poaceae). It is a perennial which may be creeping or growing in clumps. The creeping stems produce roots at the nodes in which flowering stems emerge. The culms are firm and range in heights up to 1½ feet. The nodes on creeping stems are often pubescent whereas the nodes on the mat-forming stems are glabrous. The sheaths are loose and glabrous to pubescent. The blades are flat and taper to an inrolled apex. They are 2 to 6

inches long and about 1 inch wide. The flowering stem bears terminal digital racemes in 2's or 3's, that are up to 3 inches long. Axes are winged and glabrous with thin, dry margins. The spikelets are solitary and straw-purple in color. The first glume is rarely present. The second glume and sterile lemma are glabrous and 3-nerved. The grain is yellowish and oblong to ellipsoid.

Distribution
Knotgrass is found in both wet and well-drained areas. It frequents meadows, marshes, and ditches. It can also be found in cultivated or disturbed areas, and bordering wooded areas. It is located throughout the southeast United States, Arkansas, Texas, Oklahoma, and in the western United States. It is native to Louisiana. For current distribution, consult the Plant Profile page for this species on the PLANTS Web site.

Establishment
Adaptation: Knotgrass can tolerate high salinity and a waterlogged environment. It has no tolerance of shade. New growth starts in early March and it stays green until the first frost.

Knotgrass reproduces from rhizomes, stolons, and seeds. It can be easily established by sowing stolons in damp holes. If planted in water, knotgrass will remain green throughout the year.

Knotgrass may flower throughout the year. The seeds may be gathered; however, they require a period of dormancy. The seeds yield their highest germination when temperatures are between 82 to 95º F and when they receive about 16 hours of light. Ripening can be sped up with dry storage at 122º F. Also, scarring the seeds with acid may increase germination.

It is not recommended to mix knotgrass seeds with cool season grass seeds. In parts of the United States where cool season grasses dominate, the warm season grasses can be taken over because they develop slower than the cool season grasses. It is also recommended that seed not be moved more than 300 miles north, 100 miles east or west, or 200 miles south of its point of origin.

Management
Tilling knotgrass on a dry surface will increase stolons to root and encourage a denser sod. Grazing also increases knotgrass. It withstands burning if water is above soil surface. The rhizomes enable knotgrass to survive fire. It sometimes can be troublesome by blocking irrigation ditches. In direct-seeded rice it is a serious weed that grows vigorously under favorable conditions. Check with the local extension service for recommended herbicides. Knotgrass has no known pests or problems.

Cultivars, Improved and Selected Materials (and area of origin)
Contact your local NRCS Field Office. Common seed and container plants are readily available from a number of growers, wholesalers, and retailers of native seed. Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

References
Hitchcock, A.S. 1950. *Manual of the grasses of the United States*. USDA Miscellaneous Publication No 200. Agricultural Research Administration, Washington, D.C. Pp. 603-604.

U.S. Department of Agriculture 1999. *Southern wetland flora: field office guide to plant species: Paspalum distichum*. (Version 12APR99). <http://www.npwrc.usgs.gov/resource/1999/soutflor/species/2/paspdist.htm>. USDA Natural Resources Conservation Service, South National Technical Center, Fort Worth, Texas. Northern Prairie Wildlife Research Center Home Page, Jamestown, North Dakota.

USDA, NRCS 2003. *The PLANTS database*. <http://plants.usda.gov>. 001106. National Plant Data Center, Baton Rouge, Louisiana.

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Edited 06dec00 jsp;05feb03ahv; 10aug03 jsp; 060802 jsp

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site<http://plants.usda.gov> or the Plant Materials Program Web site <http://Plant-Materials.nrcs.usda.gov>